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| 10/812,432   | 03/30/2004  | Steven Tischer       | 030519                         | 3372                   |
| 23413  | 7590        | 09/28/2007           |                                |                        |
| CANTOR COLBURN, LLP<br>55 GRIFFIN ROAD SOUTH<br>BLOOMFIELD, CT 06002 |             |                      | EXAMINER<br>LANIER, BENJAMIN E |                        |
|  |             |                      | ART UNIT<br>2132               | PAPER NUMBER           |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/812,432

Applicant(s)

TISCHER, STEVEN

Examiner

Benjamin E. Lanier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson.

U.S. Publication No. 2004/0258390, in view of Ma, U.S. Publication No. 2004/0213273.

Referring to claims 1, 8, Olson discloses a distributed storage and playback system wherein a PVR includes a virtual storage management system (VSM) that allows the user of the PVR to setup either parts of hard disks in computer systems on the network and/or allows a user to setup specific entire hard disk drives in computers on the network to be used as storage space for programs recorded using the user's PVR ([0016] & [0021]-[0022]). The VSM includes logic that tracks, in real time, how much storage is available for the PVR on the network storage disk drives ([0017] & [0024]), which meets the limitation of determining an amount of memory for storing the digital media data, querying a plurality of network computers to determine an amount

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of available memory in a plurality of memory storage devices associated with the plurality of network computers. The VSM is provided with logic capable of dividing up the storage of programs in real time to store blocks of the program in different hard disk drives physically located at different locations on the network ([0016] & [0023]), which meets the limitation of receiving digital media data and partitioning the digital media data into a plurality of digital media data sets, storing the plurality of digital media data sets in at least two of the plurality of memory storage devices associated with the plurality of network computers. The VSM maintains a real time menu or catalog of available, previously stored programs, and enables the user to select one or more of the previously stored programs for viewing ([0030] & [0040]), which meets the limitation of retrieving the plurality of digital media data sets and transmitting the plurality of digital media data sets to a device. Olson does not disclose that the partitioned programs are encrypted prior to being stored and decrypted prior to being played back. Ma discloses a network attached storage device that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]), which meets the limitation of encrypting the digital media into encrypted digital media using at least one encryption key value, decrypting the encrypted digital media in the decryption device using at least one encryption key value to obtain the digital media data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being retrieved from the network storage drives prior to playback in

order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

Referring to claim 3, Olson does not disclose that the partitioned programs are encrypted prior to being stored and decrypted prior to being played back. Ma discloses a network attached storage device that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]). A symmetric encryption system is used ([0059]), which meets the limitation of receiving at least one encryption key value from the decryption device, and encrypting the digital media data using the encryption key value and an encryption algorithm. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being retrieved from the network storage drives prior to playback in order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

Referring to claim 4, Olson discloses that the VSM is provided with logic capable of dividing up the storage of programs in real time to store blocks of the program in different hard disk drives physically located at different locations on the network ([0016] & [0023]), which meets the limitation of sending a first digital media data set to a first network computer, storing the first digital media data set in a memory storage device associated with the first network computer, sending a second digital media data set to a second network computer, and storing the second digital media data set in a memory storage device associated with the second network computer. Olson does not disclose that the partitioned programs are encrypted prior to being

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stored and decrypted prior to being played back. Ma discloses a network attached storage device that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]), which meets the limitation of encrypting the digital media into encrypted digital media data sets. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being retrieved from the network storage drives prior to playback in order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

Referring to claims 5, 6, Olson discloses that when the PVR receives an instruction from the user to playback a program that has been stored one more than once network resource, the VSM looks up the location of first portion of the program and begins playback ([0040]), which meets the limitation of determining when a user has selected to receive the digital media data, sending a first digital media data request message to a first network computer to retrieve a first digital media data set from the first network computer, transmitting the first digital media data set to the device. The VSM then looks up the location of the next portion, and so on until the complete program has been retrieved ([0040]), which meets the limitation of sending a second digital media data request message to a second network computer to retrieve a second digital media data set from the second network computer, transmitting the second digital media data set to the device. Olson does not disclose that the partitioned programs are encrypted prior to being stored and decrypted prior to being played back. Ma discloses a network attached storage device

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that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]), which meets the limitation of encrypting the digital media into encrypted digital media data sets, receiving the plurality of encrypted digital media data sets, and decrypting the plurality of digital media data sets using at least one encryption key value and a decryption algorithm. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being retrieved from the network storage drives prior to playback in order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

Referring to claims 7, 12, Olson discloses that the programs are output to a television ([0004]), which meets the limitation of displaying the digital media data on a television operably coupled to the decryption device.

Referring to claim 9, Olson discloses that the VSM is provided with logic capable of dividing up the storage of programs in real time to store blocks of the program in different hard disk drives physically located at different locations on the network ([0016] & [0023]), which meets the limitation of receive at least a portion of the plurality of digital media data sets and to stored the portion of the plurality of digital media data sets in at least two of a second plurality of memory storage devices associated with a second plurality of network computers, the second plurality of network computers communicating with the device. Olson does not disclose that the partitioned programs are encrypted prior to being stored and decrypted prior to being played

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back. Ma discloses a network attached storage device that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]), which meets the limitation of encrypting the digital media into encrypted digital media data sets. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being retrieved from the network storage drives prior to playback in order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

Referring to claims 10, 11, Olson discloses that when the PVR receives an instruction from the user to playback a program that has been stored one more than once network resource, the VSM looks up the location of first portion of the program and begins playback ([0040]), which meets the limitation of retrieve the portion of the plurality of digital media data sets stored in the second plurality of memory storage devices when a user selects to receive the digital media data, query the first computer to send the plurality of digital media data sets stored in the first plurality of memory storage devices when the user selects to receive the digital media data. Olson does not disclose that the partitioned programs are encrypted prior to being stored and decrypted prior to being played back. Ma discloses a network attached storage device that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]), which meets the limitation of encrypting the digital media into encrypted digital media data sets, receiving the plurality of encrypted digital media data sets.

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and decrypting the plurality of digital media data sets using at least one encryption key value and a decryption algorithm. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being retrieved from the network storage drives prior to playback in order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

Referring to claim 13, Olson discloses a distributed storage and playback system wherein a PVR includes a virtual storage management system (VSM) that allows the user of the PVR to setup either parts of hard disks in computer systems on the network and/or allows a user to setup specific entire hard disk drives in computers on the network to be used as storage space for programs recorded using the user's PVR ([0016] & [0021]-[0022]), which meets the limitation of at least a portion of the available memory in the first plurality of memory storage devices comprises non-volatile memory.

Referring to claim 14, Olson discloses a distributed storage and playback system wherein a PVR includes a virtual storage management system (VSM) that allows the user of the PVR to setup either parts of hard disks in computer systems on the network and/or allows a user to setup specific entire hard disk drives in computers on the network to be used as storage space for programs recorded using the user's PVR ([0016] & [0021]-[0022]), which meets the limitation of a computer storage medium having a computer program encoded therein for storing and securely transmitting digital media data in a networked system. The VSM includes logic that tracks, in real time, how much storage is available for the PVR on the network storage disk drives ([0017] & [0024]), which meets the limitation of code for determining an amount of memory for storing

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the digital media data, code for querying a plurality of network computers to determine an amount of available memory in a plurality of memory storage devices associated with the plurality of network computers. The VSM is provided with logic capable of dividing up the storage of programs in real time to store blocks of the program in different hard disk drives physically located at different locations on the network ([0016] & [0023]), which meets the limitation of code for receiving digital media data and partitioning the digital media data into a plurality of digital media data sets, code for storing the plurality of digital media data sets in at least two of the plurality of memory storage devices associated with the plurality of network computers. The VSM maintains a real time menu or catalog of available, previously stored programs, and enables the user to select one or more of the previously stored programs for viewing ([0030] & [0040]), which meets the limitation of code for retrieving the plurality of digital media data sets and transmitting the plurality of digital media data sets to a device. Olson does not disclose that the partitioned programs are encrypted prior to being stored and decrypted prior to being played back. Ma discloses a network attached storage device that stored video programming on a network storage device that is associated with a PVR such that the programming is encrypted prior to being stored ([0053]) and decrypted after being retrieved from storage and prior to playback [0054]), which meets the limitation of code for encrypting the digital media into encrypted digital media using at least one encryption key value, code for decrypting the encrypted digital media in the decryption device using at least one encryption key value to obtain the digital media data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the partitioned programs of Olson to be encrypted prior to being stored on the plurality of network storage drives, and decrypted after being

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retrieved from the network storage drives prior to playback in order to safeguard the programming from authorized access during storage and transmission as taught by Ma ([0059]-[0060]).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2004/0258390, in view of Ma, U.S. Publication No. 2004/0213273 as applied to claim 1 above, and further in view of Boston, U.S. Publication No. 2003/0235392. Referring to claim 2, Olson does not disclose that the PVR receives a memory storage value associated with the programs. Boston discloses a PVR recording system wherein the PVR receives an estimated storage space requirement for each show that is to be recorded on the PVR ([0112]). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the PVR of Olson to receive an estimated storage space requirement for each program that is to be recorded by the PVR/VSM system of Olson so that PVR/VSM system would know exactly how much storage space would be required prior to recording (Boston: [0011]) and since the PVR/VSM knows, in real time, exactly how much storage space is available, situations where only a portion of a desired program is recorded, can be avoided (Olson: [0037] & [0039]).

### *Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E. Lanier whose telephone number is 571-272-3805. The examiner can normally be reached on M-Th 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Benjamin E. Lanier